

REMARKS

Examiner Kelly L. Jerabek is thanked for the thorough examination and search of the subject Patent Application.

The Examiner's Restriction Requirement as FINAL is acknowledged. The non-elected Claims **17-25** have been cancelled, and applicant reserves the right to file a Divisional application at a later date".

All Claims are believed to be in condition for Allowance, and that is so requested.

Reconsideration of the rejection of claims **1, 5-8, 10-13, 26** under 35 U.S.C. 102(e) as being anticipated by Narayanaswami et al (US2003/0011684) is requested, based on following remarks:

Claim **1** of the claimed invention teaches:

17. A method of embedding camera information and image capture related information in a digital form of an image, comprising:
- receiving information on a first static camera characteristic;
  - receiving camera setting information related to a first captured digitized image;
  - generating an encryption key based at least in part on the first static camera characteristic;
  - embedding a watermark in said first captured digitized image, wherein the watermark contains at least a portion of the information on the first static characteristic and at least a portion of the camera setting information related to said first captured digitized image; and
  - encrypting the watermark using the encryption key.

Re claim 1, the claimed invention is different from the invention of Narayanaswami et al because Narayanaswami et al do not disclose

“receiving information on a first static camera characteristic”

as disclosed in claim 1 of the claimed invention. Applicant respectfully disagrees that Narayanaswami et al. show “receiving information on a first static camera characteristic” as the claimed invention does.

Narayanaswami et al teach (page 3, paragraph 35):

“[0035] In addition, a flux gate magnetometer (FGM) 130 of any conventional type is operatively connected to the CPU 102 for measuring the orientation of the principal axis of the camera 100 (in 3 dimensions). For instance, the FGM 130 provides an “image mode” parameter to indicate whether the camera 100 is in a portrait mode (vertical dimension is larger) or landscape mode (horizontal dimension is larger) mode. Alternatively, the camera 100 may include either a conventional gyroscope or compass (not shown) in lieu of the FGM 130 for determining the orientation of the camera 100.”

It is obvious that in regard of the teachings of Narayanaswami et al. the orientation of the principal axis of a camera measured by a flux gate magnetometer and providing e.g. an “image mode” parameter indicating whether the camera is in a portrait mode or landscape mode is not a static camera characteristic. The result of this kind of measurement can be different for every image taken. The conclusion that this kind of measurement implies that the image sensor is rectangular is speculative. The word “rectangular” has not being used in the disclosure of Narayanaswami et al. at all. The shape of the image sensor could also be elliptical, quadratic, round or of another shape.

Digital images have often the problem of “blurring” at the boundaries of the image. This can be solved by interpolating pixels located close at the boundary with pixels beyond of the boundary. This means that more pixels can potentially be used than actually shown on the final image.

Narayanaswami et al. actually teach using camera setting information related to **captured digitized images** only. In comparison, Applicant claims

“receiving information on a first **static camera** characteristic”  
as shown in claim 1 of the claimed invention.

Furthermore Narayanaswami et al. do not disclose

“receiving camera setting information related to a **first** captured digitized image;”  
as disclosed in claim 1 of the claimed invention. Narayanaswami et al. teach (page 3, paragraph 39)

“[0039] These parameters (in addition to other parameters discussed below) are generated with **each** digital image and provided to the image/parameter processor 106 wherein they are recorded onto the digital image.”:

This generation of the parameters with **each** digital image, as disclosed by Narayanaswami et al is different to the teachings of the claimed invention as shown above,

Applicant believes Claim 1 of the claimed invention to be patentable because of the differences between the claimed invention and the disclosure of Narayanaswami et al shown above.

Claims 5-7 are dependent claims upon base claim 1 which is believed to be patentable according the arguments above.

Claim 8 of the claimed invention teaches:

8. A digital camera system, comprising:
- an imager;
  - a first static camera characteristic associated with the imager;
  - a first variable camera setting;
  - a watermark generator used to embed in the form of a watermark at least one of said first static camera characteristic and said first variable camera setting information in an image captured by the camera; and
  - a key generator configured to generate an encryption key used to encrypt the watermark.

The same arguments apply for claim 8 as for claim 1 discussed above. Re claim 8 the claimed invention is different from the invention of Narayanaswami et al. because Narayanaswami et al. do not disclose

“a first static camera characteristic associated with the imager”

as disclosed in claim 8 of the claimed invention. Applicant respectfully disagrees that Narayanaswami et al. show “a first static camera characteristic associated with the imager” as the claimed invention does.

Narayanaswami et al. teach (page 3, paragraph 35):

"[0035] In addition, a flux gate magnetometer (FGM) 130 of any conventional type is operatively connected to the CPU 102 for measuring the orientation of the principal axis of the camera 100 (in 3 dimensions). For instance, the FGM 130 provides an "image mode" parameter to indicate whether the camera 100 is in a portrait mode (vertical dimension is larger) or landscape mode (horizontal dimension is larger) mode. Alternatively, the camera 100 may include either a conventional gyroscope or compass (not shown) in lieu of the FGM 130 for determining the orientation of the camera 100."

It is obvious that in regard of the teachings of Narayanaswami et al. the orientation of the principal axis of a camera measured by a flux gate magnetometer and providing e.g. an "image mode" parameter indicating whether the camera is in a portrait mode or landscape mode is not a static camera characteristic. The result of this kind of measurement can be different for every image taken. The conclusion that this kind of measurement implies that the image sensor is rectangular is speculative. The word "rectangular" has not being used in the disclosure of Narayanaswami et al. at all. The shape of the image sensor could also be elliptical, quadratic, round or of another shape. Digital images have often the problem of "blurring" at the boundaries of the image. This can be solved by interpolating pixels located close at the boundary with pixels beyond of the boundary. This means that more pixels can potentially be used than actually shown on the final image.

Therefore Applicant believes Claim 8 of the claimed invention to be patentable because of the differences between the claimed invention and the disclosure of Narayanaswami et al shown above.

Claim **10** is a dependent claims upon base claim **8** which is believed to be patentable according the arguments above.

Claims **11-13** are dependent claims upon base claim **8** which is believed to be patentable according the arguments above.

Claim **26** of the claimed invention teaches:

**26.** A method of including camera information and image capture related information in association with a digital form of an image, comprising:  
    capturing an image;  
    digitizing the image;  
    receiving information on a first static camera characteristic;  
    inserting in a data set associated with the digitized image at least a portion of the information on the first static characteristic;  
    and  
    transmitting the digitized image and the data set to an image processor.

In regard of claim **26** the same arguments apply as in the discussion of claim **1** shown above. Narayanaswami et al. do not disclose

“receiving information on a first static camera characteristic”

as disclosed in claim **26** of the claimed invention.

Reconsideration of the rejection of claims **2-4** and **14-16** under 35 U.S.C. 103(a) as being unpatentable over Narayanaswami et al. (US2003/0011684) is requested, based on following remarks:

Claims **2-4** are dependent claims upon base claim **1** which is believed to be patentable according the arguments above.

Claims **14-16** are dependent claims upon base claim **8** which is believed to be patentable according the arguments above.

Reconsideration of the rejection of claim **9** under 35 U.S.C. 103(a) as being unpatentable over Narayanaswami et al. in view of Isnardi (U.S. patent # 6,037,984) is requested, based on the following remarks:

As mentioned above Narayanaswami et al. do not disclose "a first static camera characteristic associated with the imager" as disclosed in the base claim **8** of the claimed invention.

Isnardi discloses in his abstract:

"A method and apparatus for watermarking an image or sequence of images without limiting the watermark signal. The watermarking apparatus includes a conventional DCT unit and quantizer for generating an array of quantized DCT coefficients. The array is watermarked by masking the array

to select certain ones of the DCT coefficients that are then replaced by zero values to form a masked array. The masked array is further processed by a watermark inserter that replaces the zero valued coefficients with predefined watermark coefficients to form a watermarked array of DCT coefficients, e.g., a watermarked image. A decoder for decoding the bitstream thusly generated and for removing the embedded watermark is also taught."

None of the applied references address a digital camera system having "a first static camera characteristic associated with the imager" as disclosed in claim 8 of the claimed invention. Therefore a modification of the teachings Narayanaswami et al. utilizing the method and apparatus taught by Isnardi would not result in the claimed invention as taught in claims 8 and 9.

Claim 9 of the claimed invention is believed to be patentable over Narayanaswami et al. and over the teachings of Isnardi as it is respectfully suggested that the combination of these two references cannot be made without reference to Applicant's own invention. The digital camera systems of claims 8 and 9 are all believed to be novel and patentable over these references because as outlined above Narayanaswami et al. do not disclose all the limitations of the base claim 8 which is the base claim to Claim 9. We therefore request examiner Kelly L. Jerabek to reconsider his rejection in view of these arguments.

Allowance of all Claims is requested.



It is requested that should the Examiner not find that the Claims are now allowable that the Examiner call the undersigned at 845-452-5863 to overcome any problems preventing allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'SBA', written over the printed name.

Stephen B. Ackerman, Reg. No. 37,761